



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Thomas A. Dundon et al

Serial No.: 09/960635

Filed: September 21, 2001

Title: MULTIPLE-ORIENTATION IMAGE:
DEFECT DETECTION AND
CORRECTION

By the Examiner:

Group Art Unit:

Applied Science Fiction, Inc.
8920 Business Park Drive
Austin, Texas 78759

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2621 Technology Center 2600

Assistant Commissioner for Patents
Washington, D.C. 20231

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Date of Mailing: February 4, 2002

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Assistant Commissioner for Patents
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Martha Rocha

Print Name

Signature

Dear Sir:

TRANSMITTAL LETTER

Transmitted herewith for filing in the above-identified application for patent are the
following documents:

1. Information Disclosure Statement;
2. Form PTO-1449;
3. Copies of references.

No fee is due.

The Commissioner is hereby authorized to charge payment of any fees associated
with this communication or credit any overpayment to Simon, Galasso & Frantz PLC
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PATENT

RESPECTFULLY SUBMITTED,
Thomas A. Dundon

By: Raymond M. Galasso
Raymond M. Galasso
Reg. No. 37,832

SIMON, GALASSO & FRANTZ PLC
P.O. Box 26503
Austin, TX 78755-0503
Telephone: (512) 372-8240
Facsimile: (512) 372-8247



PATENT

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Serial No.: 09/960635

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Martha Rocha Print Name
<u>Martha Rocha</u> Signature

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Applicant submits herewith patents, publications or other information of which he is aware, which he believes may be material to the patentability of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR 1.56.

While this Information Disclosure Statement may be "material" pursuant to 37 CFR 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to herein is "prior art" for this invention unless specifically designated as such.

PATENT

In accordance with 37 CFR 1.97(g) the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists.

The attached form, PTO-1449, provides a listing of patents, publications, or other information as required by 37 CFR 1.98(a)(1).

A copy of each of these items on PTO-1449 is supplied herewith.

RESPECTFULLY SUBMITTED,
Thomas A. Dundon

By: Raymond M. Galasso
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Reg. No. 37,832

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Facsimile: (512) 372-8247



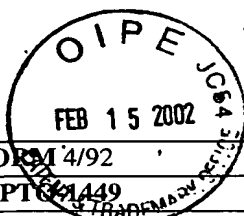
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PTO FORM 4/92										Technology Center 2600		Page 1 of 4				
FORM 4/92										ATTY. DOCKET		ASF00083		SERIAL NO. 09/960635		
LIST OF PATENTS AND PUBLICATIONS										APPLICANT		Thomas A. Dundon et al				
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DISCLOSURE STATEMENT										FOR: MULTIPLE-ORIENTATION IMAGE DEFECT DETECTION AND CORRECTION						
UNITED STATES LETTERS PATENT																
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		4	2	6	0	8	9	9	Apr. 7, 1981	Baker		250		563		
		4	3	0	1	4	6	9	Nov. 17, 1981	Modeen et al.		358		75		
		4	3	0	2	1	0	8	Nov. 24, 1981	Timson		356		359		
		4	4	6	2	8	6	0	Jul. 31, 1984	Szmanda		156		626		
		4	6	7	0	7	7	9	Jun. 2, 1987	Nagano		358		75		
		4	6	7	7	4	6	5	Jun. 30, 1987	Alkofer		358		80		
		4	6	8	0	6	3	8	Jul. 14, 1987	Childs		358		214		
		4	7	0	0	2	2	9	Oct. 13, 1987	Herrmann et al.		358		166		
		4	7	7	5	2	3	8	Oct. 4, 1988	Weber		356		431		
		4	7	9	6	0	6	1	Jan. 3, 1989	Ikeda et al.		355		73		
		4	8	4	5	5	5	1	Jul. 4, 1989	Matsumoto		358		80		
		4	9	3	3	5	6	6	Jun. 12, 1990	Masaaki et al.		250		563		
		4	9	3	7	7	2	0	Jun. 26, 1990	Kirchberg		363		41		
		4	9	6	9	0	4	5	Nov. 6, 1990	Haruki et al.		358		228		
		4	9	7	2	0	9	1	Nov. 20, 1990	Cielo et al.		250		562		
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FOREIGN PATENT DOCUMENTS																
		DOCUMENT NUMBER							DATE		COUNTRY		CLASS		SUB CLASS	
		WO 84/02019							May 25, 1984		PCT		G06F		15/20	
		WO 89/06890							Jul. 27, 1989		PCT		H04N		3/36	
		WO 90/01240							Feb. 8, 1990		PCT		H04N		1/40	
		WO 91/09493							Jun. 27, 1991		PCT		H04N		5/127	
		WO 92/05469							Apr. 2, 1992		PCT		G03B		27/53	
		WO 95/15530							Jun. 8, 1995		PCT		G06F		17/14	
		WO 97/16028							May 1, 1997		PCT		H04N		7/30	
OTHER ART (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)																
		New Adaptive Vector Filter Based on Noise Estimate, Mei Yu, et al., IEICE Trans Fundamentals, Vol. E82, No. 6, June, 1999.														
		A Robust Method for Parameter Estimation of Signal-Dependent Noise Models in Digital Images, B. Aiazzi, et al., IEEE, 1997, pp. DSP 97 - 601-604.														
		A Regularized Iterative Image Restoration Algorithm, Aggelos K. Katsaggelos, et al., IEEE, 1991, pp. 914-929.														
		Adaptive Fourier Threshold Filtering: A Method to Reduce Noise and Incoherent Artifacts in High Resolution Cardiac Images, M. Doyle, et al., 8306 Magnetic Resonance in Medicine, May, 31, 1994, No. 5, Baltimore, MD., pp. 546-550														
		Anisotropic Spectral Magnitude Estimation Filters for Noise Reduction and Image Enhancement, Til Aach, et al., IEEE, 1996, pp. 335-338.														
		Adaptive-neighborhood filtering of images corrupted by signal-dependent noise, Rangaraj M. Rangayyan et al., Applied Optics, Vol. 37, No. 20, July 10, 1998, pp. 4477-4487.														

EXAMINER

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EXAMINER: Initial if reference included, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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PTO FORM 4/92		Technology Center 2600		Page 2 of 4	
FORM PT 449		ATTY. DOCKET	ASF00083	SERIAL NO.	09/960635
LIST OF PATENTS AND PUBLICATIONS		APPLICANT	Thomas A. Dundon et al		
FOR APPLICANT'S INFORMATION		FILING DATE	Sep. 21, 2001	GROUP	2621
DISCLOSURE STATEMENT		FOR: MULTIPLE-ORIENTATION IMAGE DEFECT DETECTION AND CORRECTION			

UNITED STATES LETTERS PATENT

		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLASS
		5	0	4	7	9	6	8	Sep. 10, 1991	Carrington et al.	364	574
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		5	0	9	1	9	7	2	Feb. 25, 1992	Kwon et al.	382	54
		5	0	9	7	5	2	1	Mar. 17, 1992	Massmann	382	54
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		5	1	5	5	5	9	6	Oct. 13, 1992	Kurtz et al.	358	214
		5	2	0	0	8	1	7	Apr. 6, 1993	Birnbaum	358	80
		5	2	6	6	8	0	5	Nov. 30, 1993	Edgar	250	330
		5	2	9	1	2	8	6	Mar. 1, 1994	Murakami et al.	348	469
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		5	3	1	1	3	1	0	May 10, 1994	Jozawa et al.	348	416
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		5	4	4	7	8	1	1	Sep. 5, 1995	Buhr et al.	430	20
		5	4	4	8	3	8	0	Sep. 5, 1995	Park	358	520
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		5	4	6	5	1	6	3	Nov. 7, 1995	Yoshihara et al.	358	444
		5	4	7	7	3	4	5	Dec. 19, 1995	Tse	358	500
		5	5	0	9	0	8	6	Apr. 16, 1996	Edgar et al.	382	167
		5	5	1	6	6	0	8	May 14, 1996	Hobbs et al.	430	30

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS
		WO 98/31142	Jul. 16, 1998	PCT	H04N	5/253
		WO 98/34397	Aug. 6, 1998	PCT	H04N	
		WO 99/40729	Aug. 12, 1999	PCT	H04N	9/11
		WO 01/48694	Jul. 5, 2001	PCT	G06T	5/00
		GB 2 283 633 A	May 10, 1995	United Kingdom	H04N	5/262
		DE 28 21 868 A1	Nov. 22, 1979	Germany	G01N	21/32
		DE 196 36 867 C1	Jan. 2, 1998	Germany	H04N	5/21

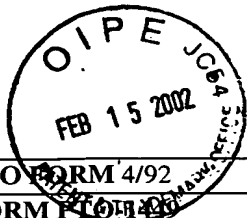
OTHER ART (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

		<i>Grayscale Characteristics</i> , Photographic Negatives The Nature of Color Images, Digital Color Management, Giorgianni, et al., Jan. 1998, pp. 163-168.
		<i>Digital Imaging Equipment White Papers</i> , Putting Damaged Film on Ice, A Technical Discussion of Advances in Digital Imaging, Nikon Corporation, http://www.nikonusa.com/reference/whitepapers/imaging/ditechdisc.html , Aug. 5, 1999.
		<i>Local Cosine Transform - A Method for the Reduction of the Blocking Effect in JPEG</i> , Gil Aharoni, et al., Journal of Mathematical Imaging and Vision, 3, 7-38, 1993.
		<i>Digital ICE</i> , Applied Science Fiction, Inc., http://www.asf.com/html/o_products/iceprod.html , Aug. 5, 1999.
		<i>About Digital ICE Technology</i> , Applied Science Fiction, Inc., http://www.asf.com/html/o_products/icetech.html , Aug. 5, 1999.
		<i>2-D Adaptive Volterra Filter for 2-D Nonlinear Channel Equalisation and Image Restoration</i> , J.N. Lin, et al., Electronic Letters, Vol. 28, No. 2, Jan. 16, 1992, pp. 180-182.

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FORM PTO 435		ATTY. DOCKET	ASF00083	SERIAL NO. 09/960635

LIST OF PATENTS AND PUBLICATIONS	APPLICANT	Thomas A. Dundon et al		
FOR APPLICANT'S INFORMATION	FILING DATE	Sep. 21, 2001	GROUP	2621
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UNITED STATES LETTERS PATENT

		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLASS
		5	5	5	2	9	0	4	Sep. 3, 1996	Ryoo et al.	358	518
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		5	5	6	8	2	7	0	Oct. 22, 1996	Endo	358	298
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		5	5	8	2	9	6	1	Dec. 10, 1996	Giorgianni et al.	430	508
		5	5	8	3	9	5	0	Dec. 10, 1996	Prokoski	382	212
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		5	6	0	8	5	4	7	Mar. 4, 1997	Nakatani et al.	358	505
		5	6	4	1	5	9	6	Jun 24, 1997	Gray et al.	430	21
		5	6	6	6	4	4	3	Sep. 9, 1997	Kumashiro	382	266
		5	6	7	3	3	3	6	Sep. 30, 1997	Edgar et al.	382	167
		5	7	2	1	6	2	4	Feb. 24, 1998	Kumashiro et al.	358	450
		5	7	6	2	7	7	3	Mar. 10, 1998	Mehlo et al.	358	474
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		5	9	2	3	0	4	2	Jul. 13, 1999	Mietta et al.	250	559.06
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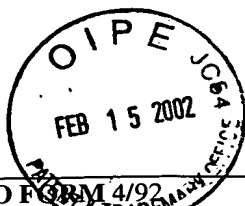
FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUB CLASS
		EP 1 547 811							Jun. 27, 1979	Europe	H04N	3/36
		EP 0 422 220 A1							Apr. 17, 1991	Europe	A61B	6/03
		EP 0 482 790 B1							Apr. 29, 1992	Europe	H04N	1/40
		EP 0 527 097 A2							Feb. 10, 1993	Europe	H04N	1/40
		EP 0 569 142 A1							Nov. 10, 1993	Europe	H04N	5/253
		EP 0 624 848 A2							Nov. 17, 1994	Europe	G06F	15/68
		EP 0 669 753 A2							Aug. 30, 1995	Europe	H04N	1/407
		EP 0 716 538 A2							Jun. 12, 1996	Europe	H04N	1/50
		EP 0 751 670 A2							Jan. 2, 1997	Europe	H04N	1/10
		EP 0 768 621 A2							Apr. 16, 1997	Europe	G06T	5/20
		EP 0 794 454 A2							Sep. 10, 1997	Europe	G03B	27/73
		EP 0 816 833 A2							Jan. 7, 1998	Europe	G01N	21/88
		EP 0 816 833 A3							Aug. 26, 1998	Europe	G01N	21/88
		EP 0 893 914 A2							Jan. 27, 1999	Europe	H04N	5/253

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		5	9	6	3	6	6	2	Oct. 5, 1999	Vachtsevanos et al.	382	150
		5	9	6	9	3	7	2	Oct. 19, 1999	Stavely et al.	250	559.42
		5	9	8	2	9	4	1	Nov. 9, 1999	Loveridge et al.	382	260
		5	9	8	2	9	5	1	Nov. 9, 1999	Katayama et al.	382	284
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		6	0	0	5	9	8	7	Dec. 21, 1999	Nakamura et al.	382	294
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		6	0	7	5	9	0	5	Jun. 13, 2000	Herman et al.	382	284
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		6	0	7	8	7	0	1	Jun. 20, 2000	Hsu et al.	382	294
		6	1	0	1	2	7	3	Aug. 8, 2000	Matama	382	169
		6	1	2	8	4	1	6	Oct. 3, 2000	Oura	382	284
		6	2	3	9	8	8	6	May 29, 2001	Klasser et al.	358	518

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS
		JP 11185028	Jul. 9, 1999	Japan	G06T	1/00
		JP 4-291139	Oct. 15, 1992	Japan	G01N	21/89
		JP 2000-13604	Jan. 14, 2000	Japan	H04N	1/409
		JP 2000-196813A	Jul. 14, 2000	Japan	H04N	1/4

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